

35. (New) Modified maltitol crystals, being bipyramidal in form comprising two regular tetrahedrons juxtaposed by their square section base with side of 50 μm to 500 μm approximately, thus constituting regular octahedrons with edge length of approximately 50 μm to 500 μm , obtained by the process comprising the following steps:

- liquefaction of a starch slurry,
- saccharification of the slurry to obtain a maltose hydrolysate containing 87% by weight of maltose,
- filtration and de-mineralization of the maltose hydrolysate,
- hydrogenation of the maltose hydrolysate to obtain a maltitol syrup having a maltitol content greater than or equal to 87% and a maltotriitol content lower than 1% by weight of dry matter,
- crystallization of the syrup and separation of the formed maltitol crystals.

36. (New) The maltitol crystals according to claim 35, obtained by the process wherein the maltitol syrup has a maltitol content greater than or equal to 92%.

37. (New) The maltitol crystals according to claim 35, obtained by the process wherein the maltitol syrup has a maltitol content greater than or equal to 96%.

38. (New) A crystalline maltitol composition, comprising essentially maltitol crystals according to claim 35 and having a maltitol greater than or equal to 87% and a maltotriitol content lower than 1%, by weight of dry matter.

39. (New) The crystalline maltitol composition according to claim 38 having a maltitol content greater than or equal to 92%.

40. (New) The crystalline maltitol composition according to claim 38 having a maltitol content greater than or equal to 96%.

41. (New) A manufacturing process of a composition in accordance with claim 38, comprising the following steps:

- liquefaction of a starch slurry,
- saccharification of the slurry to obtain a maltose hydrolysate containing 87% by weight of maltose,
- filtration and de-mineralization of the maltose hydrolysate,
- hydrogenation of the maltose hydrolysate to obtain a maltitol syrup having a maltitol content greater than or equal to 87% and a maltotriitol content lower than 1% by weight of dry matter,
- crystallization of the syrup and separation of the formed maltitol crystals.

42. (New) The manufacturing process according to claim 41, wherein the maltitol syrup has a maltitol content greater than or equal to 92%.

43. (New) The manufacturing process according to claim 41, wherein the maltitol syrup has a maltitol content greater than or equal to 96%.

44. (New) Modified maltitol crystals, being prismatic in form, ending in plane faces constituting a tetrahedron, and being 100 μm to 400 μm long and about 20 μm to 100 μm wide, obtained by the process comprising the following steps:

- liquefaction of a starch slurry,
- saccharification of the slurry to obtain a maltose hydrolysate containing 87% by weight of maltose,
- filtration and de-mineralization of the maltose hydrolysate, hydrogenation of the maltose hydrolysate to obtain a maltitol syrup having a maltitol content greater than or equal to 87% and a maltotriitol content greater than or equal to 4% by weight of dry matter,
- crystallization of the syrup and separation of the formed maltitol crystals.

45. (New) The maltitol crystals according to claim 44, obtained by the process wherein the maltitol syrup has a maltitol content greater than or equal to 92%.

46. (New) The maltitol crystals according to claim 44, obtained by the process wherein the maltitol syrup has a maltitol content equal to 96%.

47. (New) A crystalline maltitol composition, comprising essentially maltitol crystals according to claim 44 and have a maltitol content greater than or equal to 87% and a maltotriitol content greater than or equal to 4%.

48. (New) The crystalline maltitol composition according to claim 47 having a maltitol content greater than or equal to 92%.

49. (New) The crystalline maltitol composition according to claim 47 having a maltitol content equal to 96%.

50. (New) A crystalline maltitol composition, comprising essentially maltitol crystals being prismatic in form, ending in plane faces constituting a tetrahedron, and being 100 μm to 400 μm long and about 20 μm to 100 μm wide, and having a maltitol content equal to 94% and a maltotriitol content equal to 4%.

51. (New) A manufacturing process of a composition in accordance with claim 47, comprising the following steps:

- liquefaction of a starch slurry,
- saccharification of the slurry to obtain a maltose hydrolysate containing 87% by weight of maltose,
- filtration and de-mineralization of the maltose hydrolysate,
- hydrogenation of the maltose hydrolysate to obtain a maltitol syrup having a maltitol content greater than or equal to 87% and a maltotriitol content greater than or equal to 4% by weight of dry matter,
- crystallization of the syrup and separation of the formed maltitol crystals.

52. (New) The manufacturing process according to claim 51, wherein the maltitol syrup has a maltitol content greater than or equal to 92%.

53. (New) The manufacturing process according to claim 51, wherein the maltitol syrup has a maltitol content equal to 96%.

54. (New) A crystalline maltitol composition, comprising maltitol crystals being bipyramidal in form comprising two regular tetrahedrons juxtaposed by their square section base with sides of 50 μm to 500 μm approximately, thus constituting regular octahedrons with edge length of approximately 50 μm to 500 μm , and maltitol crystals being prismatic in form, ending in plane faces constituting a tetrahedron, and being 100 μm to 400 μm long and about 20 μm to 100 μm wide, obtained by the process comprising the following steps:

- liquefaction of a starch slurry,
- saccharification of the slurry to obtain a maltose hydrolysate containing 87% by weight of maltose,
- filtration and de-mineralization of the maltose hydrolysate,
- hydrogenation of the maltose hydrolysate to obtain a maltitol syrup having a maltitol content greater than or equal to 87% and a maltotriitol content, by weight of dry matter, of between 1% to 4%,

- crystallization of the syrup and separation of the formed maltitol crystals,
and having a maltitol content greater than or equal to 87% and a maltotriitol content, by weight
of dry matter, of between 1% and 4%.

55. (New) The crystalline maltitol composition according to claim 54, obtained by the
process wherein the maltitol syrup has a maltitol content greater than or equal to 92%.

56. (New) The crystalline maltitol composition according to claim 54, obtained by the
process wherein the maltitol syrup has a maltitol content greater than or equal to 96%.

57. (New) The crystalline maltitol composition according to claim 54 having a
maltitol content greater than or equal to 92%.

58. (New) The crystalline maltitol composition according to claim 54 having a
maltitol content greater than or equal to 96%.

59. (New) A manufacturing process of a composition in accordance with claim 54,
comprising the following steps:

- liquefaction of a starch slurry,
- saccharification of the slurry to obtain a maltose hydrolysate containing 87% by weight
of maltose,
- filtration and de-mineralization of the maltose hydrolysate,
- hydrogenation of the maltose hydrolysate to obtain a maltitol syrup having a maltitol
content greater than or equal to 87% and a maltotriitol content, by weight of dry matter, of
between 1% and 4%,
- crystallization of the syrup and separation of the formed maltitol crystals.

60. (New) The manufacturing process according to claim 59, wherein the maltitol
syrup has a maltitol content greater than or equal to 92%.

61. (New) The manufacturing process according to claim 59, wherein the maltitol syrup has a maltitol content greater than or equal to 96%.

62. (New) A process for determining bipyramidal or prismatic crystalline form or a mix of the two forms in a crystalline maltitol composition by controlling the maltotriitol content of the maltitol syrup in the preparation of crystalline maltitol.

63. (New) A process according to claim 62, comprising the following steps:

- liquefaction of a starch slurry,
- saccharification of the slurry to obtain a maltose hydrolysate containing 87% by weight of maltose,
- filtration and de-mineralization of the maltose hydrolysate,
- hydrogenation of the maltose hydrolysate to obtain a maltitol syrup having a maltitol content greater than or equal to 87% and a controlled maltotriitol content, by weight of dry matter, of below 1%, or between 1% and 4%, or greater than or equal to 4%,
- crystallization of the syrup and separation of the formed maltitol syrup.

64. (New) Modified maltitol crystals which crystalline form is determined by controlling the maltotriitol content of the maltitol syrup in the preparation of said crystals.

REMARKS

REJECTION UNDER 35 U.S.C. 112, SECOND PARAGRAPH

The term "A" at the beginning of new claims corresponding to old claims 13, 14, 16, 17, 20, 21, 23, 24, 26, 27, 29 and 30 has been deleted and replaced by the term --The--. It is believed that the claims are now clear and definite.

REJECTION UNDER 35 U.S.C. 103(a)

Claims 11-14 are rejected as being unpatentable over Caboche (US 5,651,829)

Applicants respectfully transverse this ground for rejection.

Claim 11 of the present invention relates to modified maltitol crystals being bipyramidal in form comprising two regular tetrahedrons juxtaposed by their square section base. Claims 12-14 (now claims 34-36) relate to a crystalline maltitol composition comprising essentially maltitol